



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,618	12/05/2007	Tamar Eilam	YOR920030587US1	3559

48915 7590 11/04/2010  
CANTOR COLBURN LLP-IBM YORKTOWN  
20 Church Street  
22nd Floor  
Hartford, CT 06103

EXAMINER
----------

CHENEY, BOBAE K.

ART UNIT	PAPER NUMBER
----------	--------------

2469

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

11/04/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,618	<b>Applicant(s)</b> EILAM ET AL.	
	<b>Examiner</b> BOBAE K. CHENEY	<b>Art Unit</b> 2469	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 10, 13-23, 25-37 and 44-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 13-23, 25-37 and 44-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 13, 16, 17, 25 – 29, 33, and 47 are amended by applicant. Claims 4 - 9, 11, 12, 24, and 38 – 43 are cancelled by applicant.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 13, 14, and 26** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Claims 13, 14, and 26** recite "An article of manufacture comprising a computer readable storage medium storing instructions, which when executed by a computer implement...."

In Specification (US 2008/0216082), recites, as follows:

[0202] Thus the invention includes an article of manufacture which comprises a computer usable medium having computer readable program code means embodied therein for causing a function described above. The computer readable program code means in the article of manufacture comprises computer readable program code means for causing a computer to effect the steps of a method of this invention. Similarly, the present invention may be implemented as a computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing a function described above. The computer readable program code means in the computer program product comprising computer readable program code means for causing a computer to effect one or more functions of this invention. Furthermore, the present invention may be implemented as a program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for causing one or more functions of this invention.

However, applicant has not provided evidence to limit the specific statutory embodiments, "computer readable storage medium" belongs to the statutory

Art Unit: 2469

embodiments. Since the applicant fails inclusively and specifically provide antecedent basis to limit the specific statutory embodiments, "computer readable storage medium" belongs to the intrinsic non-statutory embodiments such as carrier signal, radio wave, light wave, and transmission medium/media.

Note that signal claims are not directed to a process since they do not cover an act or series of acts. No part of the signal is a mechanical "device" or "part." A propagating electromagnetic signal is not a "machine" as that term is used in § 101. Signals, standing alone, are not "manufactures" under the meaning of that term in § 101. A signal comprising a fluctuation in electric potential or in electromagnetic fields is not a "chemical union," nor a gas, fluid, powder, or solid. Signals are not "compositions of matter." Thus, a transitory, propagating signal is not a "process, machine, manufacture, or composition of matter. Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such a signal cannot be patentable subject matter. (see *In re Nuijten*, 500 F. 3d 1346 1356 n.7 (Fed. Cir 2007).

In view of the above analysis, claims 13 and 26 are ineligible for patent protection as failing to be limited to embodiments which fall within a statutory category.

Claims 14 is also rejected since they are depended on the rejected claim set forth above.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2469

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 - 3, 10, 13 – 16, 34, and 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanumgam (US Patent 6,708,187) in view of Hauser (US Patent 5,889,956).

6. **Regarding to claim 1**, Shanumgam teaches a method comprising providing an automatic hierarchical management of a computing infrastructure for at least one domain for an entity, said step of providing hierarchical management comprising [Column 12 Line 52 – 62]:

Obtaining a hierarchical representation of said at least one domain [Figure 13, Column 12 Line 52 – 62: hierarchical organization of VPN clouds], said representation including:

A list of computing environments to be managed [Figure 13: list VPN clouds to be managed].

Instantiating the representation [Figure 13, Column 12 Line 26 – 40: displaying VPN clouds representation].

Shanumgam does not expressly teach “*at least one policy controlling acquisition of at least one resource from recourse libraries for said at least one domain, and any sub-domains within said at least one domain.*”

However, Hauser teaches hierarchical resource management (sub-domains) specifying maximum amount (acquisition policy) of resource to be allocated to the respective entity [Column 2 Line 1 – 28]. It would have been obvious to one of ordinary

Art Unit: 2469

skill in the art at the time of the invention to have resources taught by Hauser in hierarchical environment taught by Shanumgam for the purpose of improve efficiency and reduce the cost of resources [Hauser Column 1 Line 33 – 55].

7. **Regarding to claim 2**, Hauser teaches deriving a set of resources required for said list of computing environments in constructing said hierarchical management [Column 2 Line 1 – 26: resources governed by resource usage levels].

Providing resources for said set of resources to said at least one domain [Figure 5, Column 6 Line 26 – 42]. It will be obvious to combine Hauser for the same reasons set for claim 1 above.

8. **Regarding to claim 3**, Shanumgam teaches further comprising at least one limitation taken from a group of limitations consisting of:

further comprising updating said at least one policy of the representation;

further comprising utilizing library services;

further comprising associating each computing environment with a particular sub-domain;

wherein the step of utilizing includes reserving a set of resources required by said list of computing environments;

further comprising acquiring the set of resources and using at least one resource from said set of resources;

wherein said at least one domain is a plurality of domains;

wherein at least one domain from said at least one domain is a sub domain of another domain;

further comprising associating at least one library service from said library services with at least one collector;

wherein both the quantity and types of base resources change over time;

wherein said method is employed in providing service on-demand;

wherein said at least one resource is a base or composite resource;

**further comprising organizing said at least one resource into a service offered to a plurality of customers;** [Column 12 Line 40 – 45: VPN cloud allow users to access sites (service)].

further comprising allocating base resources to a library service;

further comprising formulating composite resources from base resources satisfying a service, description;

further comprising allocating composite resources to a library service; and further comprising allocating services to a library service

9. **Regarding to claim 10**, Shanumgam teaches wherein at least one of said at least one domain is a root domain [Column 12 Line 52 – 63: hierarchical organization of VPN clouds, VPN cloud is top of the hierarchy. Therefore, VPN cloud is root domain].

10. **Regarding to claim 13**, Shanumgam and Hauser teaches an article of manufacture comprising a computer readable storage medium storing instructions, which when executed by a computer implement provisioning of hierarchical management of at least one domain for a computing utility [Shanumgam Column 12 Line 41 – 45], the computer readable program code means in said article of

Art Unit: 2469

manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 1 [see claim 1 rejection above].

11. **Regarding to claim 14**, Shanumgam and Hauser teaches a program storage device readable by machine [Shanumgam Column 4 Line 6 – 21], tangibly embodying a program of instructions executable by the machine [Shanumgam Column 12 Line 41 – 45] to perform method steps for providing hierarchical management of at least one domain for a computing utility, said method steps comprising the steps of claim 1[see claim 1 rejection above].

12. **Claim 15** is similar to claim 1. Claim 15 is rejected under the similar grounds.

13. **Regarding to claim 16**, Shanumgam and Hauser teaches computer program product comprising a computer usable storage medium storing instructions [Shanumgam Column 12 Line 41 – 45], which when executed by a computer implement provisioning of hierarchical management of at least one domain for a computing utility, the compute readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect the functions of claim 15 [see claim 15 rejection above].

14. **Regarding to claim 34**, Hauser teaches a requesting computing environment making a request for a particular combination of resources [Column 7 Line 28 – 35: requester (requesting computing environment) requesting or a memory resource].

checking said representation of the acquisition policy of said requesting computing environment to verify that satisfaction of the request for the particular of resources is within the acquisition policy of said requesting computing environment; and



Art Unit: 2469

[Figure 3, Column 7 Line 28 – 35: determining the request will be granted or rejected based on the minimum provided and maximum allowed]

repeating the step of checking for all parent collector of said requesting collector until any root collector is reached [Figure 3 Part 320, 322: repeating until reaching level N (root collector)]. It will be obvious to combine Hauser for the same reasons set for claim 1.

15. **Regarding to claim 35**, Hauser teaches further comprising determining if the acquisition policy is satisfied all the way to any root collector; if the acquisition policy is satisfied the request is granted otherwise the request is denied [Figure 3, Column 7 Line 28 – 35: determining the request will be granted or rejected based on the minimum provided and maximum allowed (policy) in each level (all the way to any root collector)]. It will be obvious to combine Hauser for the same reasons set for claim 1.

16. **Claims 36 and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanumgam and Hauser as applied to claim 1 above, and further in view of Pitts (US Patent 6,847,968).

17. **Regarding to claim 36**, Shanumgam teaches hierarchical management, but does not expressly teach *making a request for a particular combination of resources*.

However, Pitts teaches requesting data (resource) [Colum 2 Line 36 – 39].

Determining a starting collector to start a search for the combination of resource [Column 2 Line 40 – 49: flowing the request to NDC (collector)].

Checking if the starting collector has at least one resource from said combination of resources, said at least one resource being a located resources [Column 2 Line 61 – 67]

checking if there is at least one library which includes at least one resource from said combination of resources, said at least one resource being a located resources [Column 2 Line 61 – 67]

repeating the step of checking at each collector from a starting collector to any root collector [Column 2 Line 61 – 67]

if all resources of said combination are located resources reserving all located resources, otherwise denying the request [Column 2 Line 61 – 67: if the requested data isn't present in the NDC, then NDC access elsewhere for missing data, which means it checks collectors for data]. It would have been obvious to one of ordinary skill in the art at the time of the invention to request data and searching for data taught by Pitts in hierarchical management taught by Shanumgam for the purpose of permit secure distribution of files among networked digital computers and to maintain consistency [Column 5 Line 22 – 25].

18. Regarding to **claim 37**, Pitts teaches further comprising calling arbitration to continue locating all resources from said combination of resources [Column 2 Line 61 – 67: if the requested data isn't present in the NDC, then NDC access elsewhere for missing data].

Art Unit: 2469

19. **Claims 17 – 23, and 25 - 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitts (US Patent 6,847,968) in view of Shanumgam (US Patent 6,708,187).

20. **Claims 17 – 23, and 25 - 28** are rejected under 35 U.S.C. 103 (a) as being unpatentable over Pitts (US Patent 6,847,968) in views of Shanumgam (US Patent 6,708,187) and Kamiya (US Patent 5,923,845).

21. **Regarding to claim 17**, Pitts teaches a method comprising: creating an automatic hierarchical representation of a computing infrastructure, for an entity comprising organizing the entity into a domain tree of domains [Column 5 Line 44 – 59: establishing a hierarchical domain tree that encompasses digital computers].

Wherein each domain represents a different organization within the entity [Column 5 Line 44 – 59: root domain representing digital computer files].

Said each *domain obtains computing environments* and resources from a computing utility [Figure 3, Column 6 Line 53 – 67: each network distributed caches (domain) with file system tree (resources)]. Pitts does not expressly teach *obtaining computing environment*.

However, Shanumgam teaches hierarchical organization of VPN clouds (computing environment) [Figure 13, Column 12 Line 52 – 62]. It would have been obvious to one of ordinary skill in the art at the time of the invention to obtain computing environment taught by Shanumgam in hierarchical domain tree taught by Pitts for the purpose of allowing businesses to efficiently communicate with their business partners [Column 1 Line 23 – 31].

Pitts and Shanumgam do not expressly teach *the computing utility comprising multiple root collectors, each root collector representing the organization within the entity, and enabling resource sharing between the different organizations.*

However, Kamiya teaches the computing utility comprising multiple root collectors [Figure 1, parts 11, 121, and 131, Column 7 Line 16 – Column 8 Line 5: root collectors], Each root collector representing the organization within the entity [Column 7 Line 16 – Column 8 Line 5: each root collector representing each user/organization], and enabling resource sharing between the different organization [Column 15 Line 55 – Column 16 Line 3: sharing information between user/organization]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have sharing information between organizations taught by Kamiya in hierarchical organization taught by Pitts for the purpose of improve disparate conventional systems [Kamiya Column 3 Line 57 – Column 4 Line 2].

22. Regarding to **claim 18**, Shanumgam teaches determining computing environments to be associated with each domain [Figure 13, Column 12 Line 52 – 62: hierarchical organization of VPN clouds (computing environment)].

Determining an acquisition policy and a *distribution policy* for each domain [Figure 13, Column 13 Line 1 – 6: VPN rules (acquisition policy)].

Shanumgam does not expressly teach *distribution policy*.

However, Pitts teaches enforcing file access policies (distribution policy) [Column 5 Line 66 – Column 6 Line 19].

Converting the domain tree into a collector hierarchy [Column 5 Line 44 – 59: establishing a hierarchical domain tree].

Connecting said collector hierarchy into a hosted root collector for a hosted environment [Column 5 Line 44 – 59: establishing the hierarchical domain tree by exporting (connecting) a root for the domain tree]. It will be obvious to combine Shanumgam and Pitts for the same reasons set for claim 17 above.

23. Regarding to **claim 19**, Pitts teaches further comprising using said hosted environment to provision at least one computing environment and at least one resource to said entity [Column 5 Line 60 – 65: retrieving files stored in file system tree through domain root].

24. Regarding to **claim 20**, Pitts teaches wherein the step of connecting is performed by a service provider [Column 5 Line 44 – 59: digital computer (server) establishes the hierarchical domain tree by exporting (connecting) a root for the domain tree].

25. Regarding to **claim 21**, Shanumgam teaches wherein the step of connecting includes connecting collector hierarchies for a plurality of customers of the hosted environment into the hosted root collector, [Figure 13: users (customers) connected to VPN cloud (root collector)]. It will be obvious to combine Shanumgam for the same reasons set for claim 17 above.

26. Regarding to **claim 22**, Pitts teaches inserting a collector as a hierarchy root collector of the collector hierarchy, [Figure 3 part 50, Column 7 Line 27 – 42: the network distributed caches (collector) is inserted in root domain], determining a number of computing environments of the root domain of the domain tree and whether a sub

Art Unit: 2469

domain of a root domain of the domain tree exist, if there is only one computing environment and no sub domains of a root domain of the domain tree, inserting a PMRS in the collector hierarchy and terminating the step of converting, otherwise, for each computing environment of said root domain of the domain tree, adding a collector and PMRS to the root collector of said collector hierarchy [Abstract, Column 7, Line 1 – 14];

determining sub domains of said root domain of the domain tree that have only one computing environment:

for each sub domain of said root domain of the domain tree that has only one computing environment and no other sub domain, inserting a PMRS into the collector hierarchy, for each sub domain of said root domain of the domain tree that has more than one computing environment or other sub domains, placing said each sub domain on a domain processing list [Abstract, Column 7, Line 1 – 14]; and

repeating the step of inserting a collector, the step of determining a number of computing environments for each domain on the domain processing list as if it were a root domain, and the step of determining sub domains of said root domain of the domain tree that have only one computing environment, until said domain processing list is empty [Abstract, Column 7, Line 1 – 14: distributed data service (PMRS) in domains and sub-domains].

27. **Regarding to claim 23**, Pitts teaches wherein the step of connecting is performed by a service provider, [Column 5 Line 44 – 59: digital computer (server) establishes the hierarchical domain tree by exporting (connecting) a root for the domain tree].

28. **Regarding to claim 25**, an article of manufacture comprising a computer usable storage medium storing instructions [Pitts Column 1 Line 38 – 50], which when executed by a computer implement a method for creating a hierarchical representation of an entity, the method comprising the steps of claim 17 [see rejection for claim 17 above].

29. **Regarding to claim 26**, a computer readable storage device readable the computer readable storage device storing instruction executable by the computer [Pitts Column 1 Line 38 – 50] to perform method steps for creating a hierarchical representation of an entity, said method steps comprising the steps of claim 17 [see rejection for claim 17 above]

30. **Claim 27** is similar to claim 17. Therefore, claim 27 is rejected under the similar ground.

31. **Regarding to claim 28**, a computer program product comprising a computer usable storage medium storing instructions [Pitts Column 1 Line 38 – 50], which when executed by a computer implement a method for the creation of a hierarchical representation of an entity, the method performing the functions of claim 27 [see rejection for claim 27 above].

32. **Claims 29 and 47** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitts (US Patent 6,847,968) in view of Jennings (US Publication 2002/0099842).

33. **Regarding to claim 29**, Pitts teaches an apparatus comprising a plurality of collectors to represent a plurality of domains in a computing utility, each of said collectors being linked to at least one other collector, each collector having: a controller

Art Unit: 2469

to control reserved resources for each domain [Column 4 Line 47 – 67: NDC (collector) declaring itself as consistency control site].

a policy advisor to interpret *acquisition policies* [Column 12 Line 25 – 34: domain manager in NDC using policy data to regulate access to file].

Pitts does not expressly teach *acquisition policies*.

However, Jennings teaches distribution rules (policy) used to manage capacity (acquisition) [Paragraph 53].

A resource manager to manage resource acquisition for computing environments, the resource manager managing resource acquisition based on the acquisition policies [Paragraph 53: distribution rules to manage capacity for resources]. It would have been obvious to one of ordinary skill in the art at the time of the invention to use acquisition policy taught by Jennings in control of reserved resources taught by Pitts for the purpose of increase control over content management and for the sufficient notions of resource allocation and control [Jennings Paragraph 7].

34. **Regarding to claim 47**, a computer program product comprising a computer usable storage medium storing instructions [Pitts Column 1 Line 38 – 50], which when executed by a computer implement a method for controlling and managing resources, the method performing the functions of claim 29 [see rejection for claim 29 above].

35. **Claims 30 – 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitts and Jennings as applied to claim 29 above, and further in view of Antognini (US Patent 5,649,185).



Art Unit: 2469

36. Regarding to **claim 30**, Pitts teaches collector, but does not expressly teach *said apparatus further comprising at least one base resource library service, at least one collector is associated with at least one of said at least one base resource library service, said base resource library service having a Resource Operations interface and a Catalog interface*

However, Antognini teaches library server with set of order routines (resource operation) and catalog [Column 5 Line 60 – Column 6 Line 6]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have library server taught by Antognini in collector taught by Pitts for the purpose of provide access to a library user seeks to store, retrieve, or replace a data object in the library [Column 2 Line 1 – 3].

37. Regarding to **claim 31**, Antognini teaches wherein said at least one base resource library service includes at least one public Base Resource Library Service to provide library services to at least one domain, said public base resource library service having a Resource Operations interface and a Catalog interface [Figure 1, Column 5 Line 4 – 13: library server providing service to library client (domain)].

38. Regarding to **claim 32**, Antognini teaches wherein said Resource operation interface provides an operation taken from a group of operations consisting of: Reserve, CancelReservation, CheckIn, CheckOut, Query, Update; and any combination of these operation [Column 5 Line 60 – Column 6 Line 6: library server's set of order routines including store (CheckIn) and Retrieve (CheckOut)].

Art Unit: 2469

39. Regarding to **claim 33**, Antognini teaches wherein said Catalog operations interface provides an operation taken from a group of operations consisting of: Reserve, Add, Remove, Update, Query, and any combination of these operation [Column 7 Line 45 – 49: query ordering a library catalog inquiry and update ordering a change to records in a library catalog].

40. **Claims 44 and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumelsky (US Patent 6,460,082) in view of Antognini (US Patent 5,649,185).

41. Regarding to **claim 44**, Lumelsky teaches an architecture for a computing utility comprising an apparatus to provide at least one service for a plurality of clients, said apparatus comprising:

A Base Resource Distribution Service to allocate resources to said at least one service [Column 5 Line 5 – 30: service unit allocating resource]

Said Base Resource Distribution Service having at least one collector [Column 5 Line 31 – 55: server with meta-resource (collector)].

At least one Provisioned and Managed Resource Service coupled to said Base Resource Distribution Service to provision and manage said resources for said at least one service [Column 5 Line 5 – 30: server able to provisioning media].

Lumelsky does not expressly teach *at least one Base Resource Library Service coupled to said Base Resource Distribution Service to provide reservation and allocation of resources.*

However, Antognini teaches library server [Column 5 Line 60 – Column 6 Line 6]. It would have been obvious to one of ordinary skill in the art at the time of the invention

Art Unit: 2469

to have library server taught by Antognini in base resource distribution service taught by Lumelsky for the purpose of provide access to a library user seeks to store, retrieve, or replace a data object in the library [Column 2 Line 1 – 3].

42. Regarding to **claim 46**, Lumelsky teaches wherein the architecture is used by an on-demand service [Column 5 Line 5 – 30: the service unit is used in service on-demand].

43. **Claim 45** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lumelsky and Antognini as applied to claim 44 above, and further in view of Pitts (US Patent 6,847,968).

44. Regarding to **claim 45**, Lumelsky teaches an arbiter coupled to said base resource distribution service and available to each of said collectors, said arbiter provides dynamic resource allocation to each collector of said computing utility [Column 5 Line 5 – 30: service unit allocating resource].

Lumelsky teaches collector, but does not expressly teach *at least one collector, each collector anchoring a representation of a particular domain and holds polices of said particular domain and holds resources reserved for said particular domain.*

However, Pitts teaches NDC (collector) declaring itself as consistency control site [Colum 4 Line 47 – 67], domain manager in NDC using policy data to regulate access to files [Column 12 Line 25 – 34], and domain manager in NDC [Column 7 Line 27 – 42]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have collector taught by Lumelsky with policies of domain taught by Pitts for the

Art Unit: 2469

purpose of permit secure distribution of files among networked digital computers and to maintain consistency [Pitts Column 5 Line 22 – 25]..

***Response to Arguments***

45. Applicant's arguments, see page 12, filed 08/12/2010, with respect to claim objection have been fully considered and are persuasive. The claim objection of claims 10, 32, and 33 has been withdrawn.

46. Applicant's arguments, see pages 13 - 14, filed 08/12/2010, with respect to 112 rejection have been fully considered and are persuasive. The 112 rejection of claim 29 has been withdrawn.

47. Applicant's arguments with respect to claim 29 have been considered but are moot in view of the new ground(s) of rejection.

48. Applicant's arguments with respect to claim 17 have been considered but are moot in view of the new ground(s) of rejection.

49. Applicant's arguments filed 08/12/2010 have been fully considered but they are not persuasive.

50. Regarding to 101 rejection of claims 15, 27, 29 – 33 and 44 – 46, applicant argues that paragraph 200 of specification supports a physical apparatus. However, specification paragraph 200 cites " the present invention can be realized in hardware, **software**, or a combination of hardware and software." Even though the specification mentions hardware, the invention is not limited to hardware.

51. Regarding to claim 101 rejection of claims 13, 14, and 26, applicant argues computer readable storage medium storing instructions, which is non transitory.

Art Unit: 2469

However, it can be reasonably interpreted that the computer readable medium or program storage device would include embodiments including propagation media, such as carrier waves, which fail to establish a statutory category of invention.

52. Regarding to claim 1, applicant argues that Shanumgam does not teach acquisition policy or sub-domain. However, acquisition policy and sub-domain is taught by Hauser [Column 2 Lien 1 – 28].

53. Regarding to claim 15, applicant argues that Hauser does not teach composite resources. However, application's specification paragraph 49 cites “the computing environment is a type of composite resource.” Hauser teaches telecommunication network, which is computing environment.

54. Regarding to claim 44, applicant argues that Antognini does not teach “reservation.” However, Antognini teaches library server with order routine “retrieve” [Column 5 Line 20 - Column 6 Line 6]. In order to retrieve data from library server, the data needs to be reserved for the library client.

### ***Conclusion***

55. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2469

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BOBAE K. CHENEY whose telephone number is (571)270-7641. The examiner can normally be reached on Monday - Thursday 9:00 AM- 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ian Moore can be reached on (571)272-3085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BOBAE K CHENEY  
Examiner  
Art Unit 2469

/B. K. C./

Application/Control Number: 10/587,618

Page 22

Art Unit: 2469

Examiner, Art Unit 2469

/Ilan N. Moore/

Supervisory Patent Examiner, Art Unit 2469